CLAIMS

What is claimed is:

1. A method in a distributed system for passing a first object and a second object, wherein the first object and the second object are instances of a class, comprising the steps of:

passing the first object from a sender to a recipient with a descriptor of the class and a handle corresponding to the descriptor;

storing the handle and the descriptor by the recipient;

passing the second object from the sender to the recipient with the handle; and

using the handle by the recipient to access the descriptor.

2. The method of claim 1, further comprising the step of:

assigning, by the sender, the handle to the descriptor of the class.

3. The method of claim 1, further comprising the step of:

assigning, by the recipient, the handle to the descriptor of the class.

4. The method of claim 1, further comprising the steps of:

using the descriptor by the recipient to interpret the first object; and

using the descriptor by the recipient to interpret the second object.

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5. A method in a distributed system for passing a first object and a second object to a recipient, wherein the first object and the second object are instances of a class, comprising the steps of:

passing the first object to the recipient with a descriptor of the class and a handle corresponding to the descriptor; and

passing the second object to the recipient with the handle, whereupon receipt by the recipient, the recipient uses the handle to access the descriptor of the class.

6. The method of claim 5, further comprising the step of:

assigning the handle to the descriptor of the class.

7. A method in a distributed system for interpreting a first object and a second object, wherein the first object and the second object are instances of a class, comprising the steps of:

receiving the first object with a descriptor of the class and a handle corresponding to the descriptor;

storing the handle and the descriptor;

receiving the second object with the handle; and

using the handle to access the descriptor.

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8. The method of claim 7, further comprising the step of:

assigning the handle to the descriptor of the class.

9. The method of claim 7, further comprising the steps of:

using the descriptor to interpret the first object; and

using the descriptor to interpret the second object.

10. A method in a distributed system for passing an object from a sender to a recipient, comprising the steps of:

creating a serialization context containing a class descriptor and a handle corresponding to the class descriptor, the class descriptor referring to a class of the object, wherein the creating step further comprises the substeps of:

storing the serialization context at the sender; and

storing the serialization context at the recipient;

handshaking between the sender and the recipient, wherein the handshaking step further comprises the substeps of:

transmitting from the sender to the recipient a request to use the serialization context during a communication session;

determining whether the serialization context is stored at the recipient;

when it has been determined that the serialization context is stored at the recipient,

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sending a response from the recipient to the sender indicating that the serialization context will be used during the communication session; and

passing the object from the sender to the recipient using the serialization context; and

when it has been determined that the serialization context is not stored at the recipient,

creating a new serialization context for use during the communication session; and

passing the object from the sender to the recipient using the new serialization context; and

using the handle by the sender to obtain the class of the object.

11. The method of claim 10, wherein the passing step comprises the substeps of:

determining whether the serialization context has been confirmed by the recipient;

sending the handle and data from the object from the sender to the recipient, when it is determined that the recipient has confirmed the serialization context; and

sending the handle, the class descriptor, and data from the object from the sender to the recipient, when it is determined that the recipient has not confirmed the serialization context.

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12. A method in a distributed system for interpreting an object, comprising the steps of:

creating a handle corresponding to a class descriptor, wherein the class descriptor contains information that enables a recipient node in the distributed system to interpret the object;

determining whether the class descriptor is accessible to the recipient node;

sending the class descriptor and the handle to the recipient node, when it is determined that the class descriptor is not accessible by the recipient node; and

sending the handle to the node, when it has been determined that the class descriptor is accessible by the recipient node, wherein the recipient node uses the handle to obtain the class descriptor of the object.

13. The method of claim 12, further comprising the step of:

using the class descriptor by the recipient node to interpret the object.

14. The method of claim 13, wherein the using step further comprises the step of:

storing, by the recipient node, the class descriptor so that it is accessible to the recipient node.

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15. A distributed system comprising:

a client computer, comprising:

a memory with a client program that sends an object of a class to a remote location, and with an outgoing serialization context that stores a descriptor of the class and a handle corresponding to the descriptor; and

a processor that runs the client program; and

a server computer, comprising:

a memory with an incoming serialization context that stores the descriptor of the class and the handle, and with a server program that receives the object from the client program and that uses the handle to access the descriptor of the class in the incoming serialization context; and

a processor that runs the server program.

16. A computer-readable memory device encoded with a data structure, the data structure having a plurality of entries, each entry comprising:

a class descriptor that provides interpretation information for a corresponding object; and

a handle that is used by a program upon receipt of the corresponding object from a remote location to access the class descriptor.

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17. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the method for sending a first object and a second object from a source to a destination, wherein the first object and the second object are instances of a class, the method comprising the steps of:

sending the first object from the source to the destination with a descriptor of the class and a handle corresponding to the descriptor;

storing the handle and the descriptor by the destination;

sending the second object from the source to the destination with the handle; and

using the handle by the destination to access the descriptor.

18. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the method for interpreting an object in a distributed system, the method comprising the steps of:

creating a handle corresponding to a class descriptor, wherein the class descriptor contains information that enables a recipient node in the distributed system to interpret the object;

determining whether the class descriptor is accessible to the recipient node;

sending the class descriptor and the handle to the recipient node, when it is determined that the class descriptor is not accessible by the recipient node; and

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sending the handle to the recipient node such that the recipient node uses the handle to obtain the class descriptor of the object when it has been determined that the class descriptor is accessible by the recipient node.

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